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UNITED NATIONS  
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**GUIDELINES IN THE PREPARATION OF MANPOWER  
PROFILES AND IDENTIFICATION OF TRAINING NEEDS**

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## A INTRODUCTION

1. The objectives of socio-economic transformation and long-term development in Africa present formidable challenges to Africa's human resources planners. Prospects for socio-economic transformation and long-term development will only be enhanced to the extent that Africa's human resources base is expanded and strengthened to enable it spearhead and sustain transformation and development. African governments have, themselves, acknowledged the urgent necessity for strategies, policies and programmes to be put in place to alleviate mass poverty; increase food self-sufficiency; industrial output; strengthen inter-sectoral linkages; reduce dependence on imports of production inputs, consumer goods and the export of primary commodities for foreign exchange earnings; and promote regional co-operation and integration.<sup>1</sup>

2. In the context of the foregoing, any guideline in the preparation of manpower profiles and identification of training needs should attempt to determine the various skills necessary to achieve the stated diverse objectives. In particular, it should seek to determine whether the existing skills structure in the economy is adequate; if not, it should indicate the skills structure (both quantitatively and qualitatively) needed; how this structure is to be produced (through formal or non-formal training programmes or both); who will bear the cost of producing these various skills (the government or the employers); whether it is necessary to revise the pay structure and the entire enabling environment so as to promote job-satisfaction and, thereby, improve the retention and utilisation of human resources. Since unemployment rates are increasing among the educated youth, the manpower profile should also try to determine why the graduates of the current educational system are unemployable. To the extent that the future growth in employment is likely to be greatest in the agricultural and informal sectors, an analysis of how existing educational and training programmes could be re-oriented so as to promote employment in these sectors (either as self-employed workers or employees) should be done with a view to determining appropriate policies.

3. An accurate description of the various characteristics of the existing manpower stock and the identification of the training requirements would need a lot of detailed information on the labour market. The type of information required relates to the age and educational

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<sup>1</sup>See ECA, African Alternative Framework to Structural Adjustment Programmes for Socio-Economic Recovery and Transformation (AAF-SAP), Addis Ababa, 1989.

structure of the population, training institutions, career movements, internal and external migration, earnings and their structures, economic performance of the various sectors, the socio-economic conditions of the rural and urban labour markets, etc. An analysis of such information would help us determine the critical factors which influence the supply of and demand for labour services. As such we shall be in a better position to formulate realistic manpower policies and objectives which can be integrated with other national development policies and objectives. In addition, the designing of realistic training programmes and policies would be made possible.

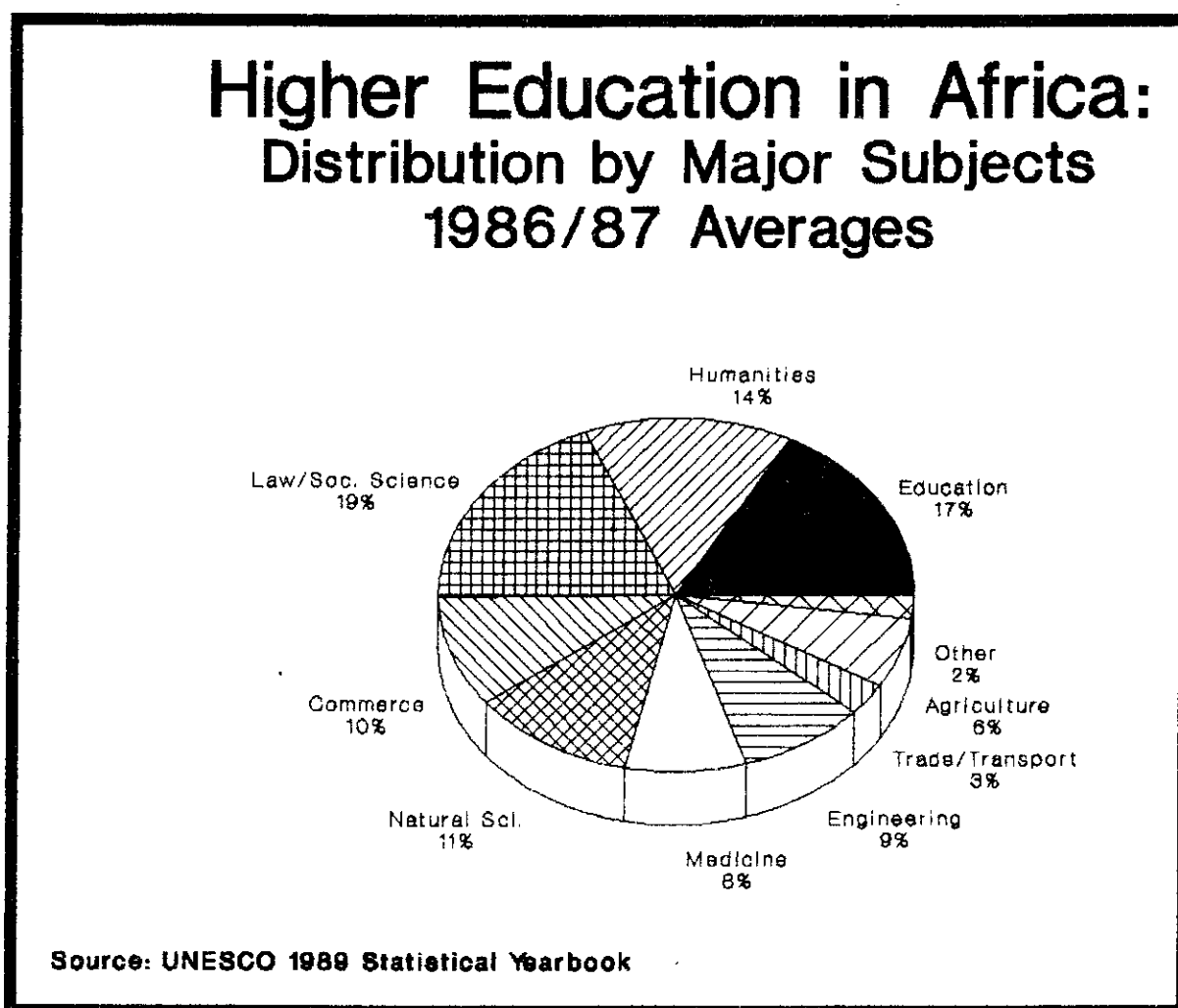
4. In analysing the above issues, this paper first looks at Africa's current manpower profile. It then reviews and discusses the concepts of training needs assessment and labour market information (LMI). Finally general guidelines for the preparation of manpower profiles and identification of training needs is presented.

## **B AFRICA'S MANPOWER PROFILE**

5. The current manpower profile in Africa is such that scientific and engineering skills are very much in short-supply. However, this does not mean that all of the available technical and scientific manpower is being effectively utilized. In many African countries, technicians, technologists, engineers, agricultural experts and other natural sciences graduates -- the critical skills needed for socio-economic recovery and transformation -- go unemployed. While this is true, the gist of the matter is that the technical and scientific manpower base need to be expanded if Africa is to internalise the development process.

6. Available evidence on enrolment in higher education and of the estimated number of scientists and technical manpower per million population show that Africa has, still, a long way to fulfil its technical and scientific manpower base. Figure 1 shows that liberal arts based subjects such as law, social sciences, humanities and education account for about 50 per cent of total enrolment in higher education. If we add commerce subjects, the share of liberal arts subjects rise to about 60 per cent. The shares of such vital disciplines as medicine, engineering, agriculture and trade/transport continue to be too low to contribute meaningfully to Africa's socio-economic development endeavours. When this low enrolment is considered in the context of the low share (2 per cent) of higher education in total

Figure 1

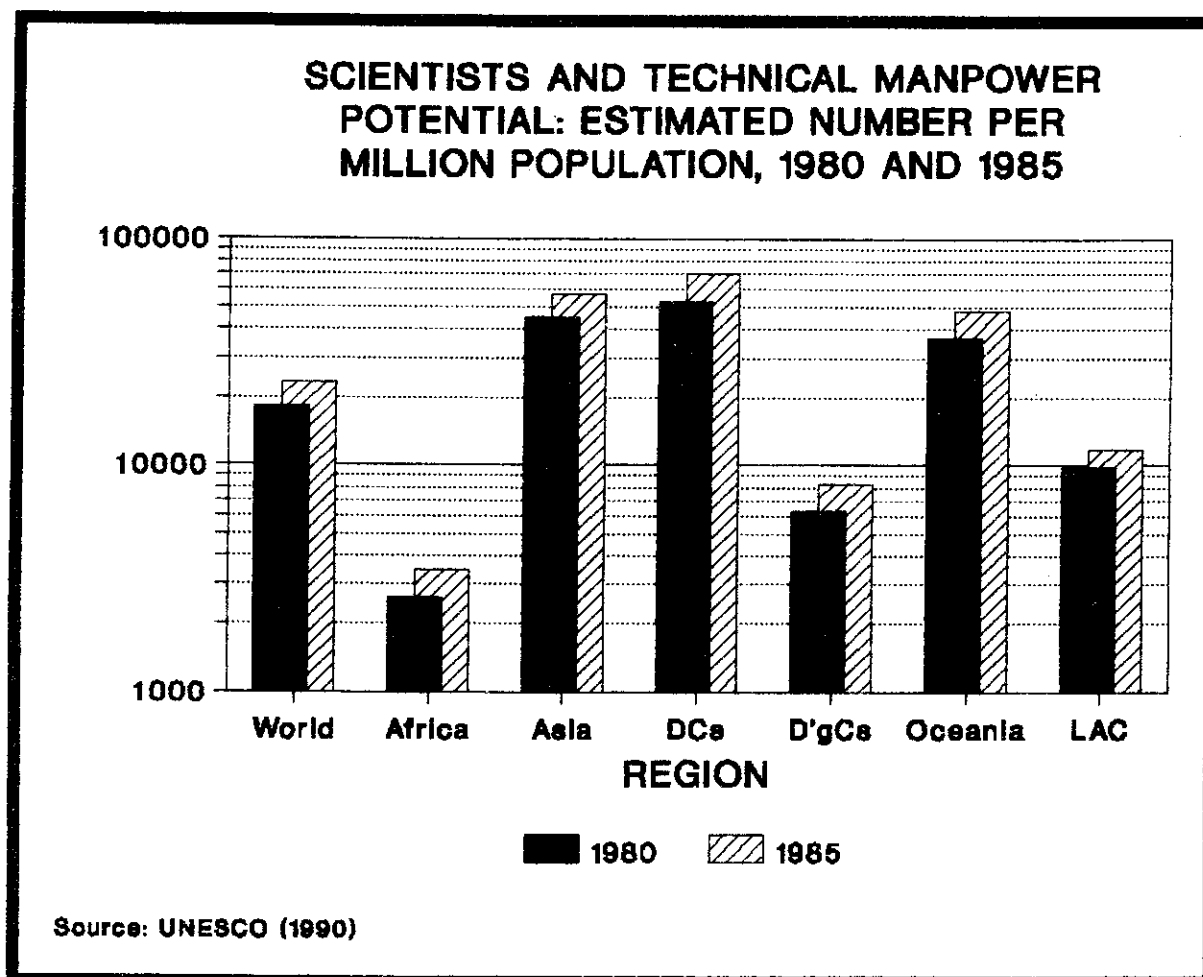


educational enrolment in Africa, the magnitude of the problem becomes obvious.

7. It is therefore not surprising to observe that the estimated number of scientists and technical manpower per million population in Africa is the lowest in the world. Figure 2 shows that at about 2,600 in 1980 and 3,400 in 1985, the number of scientists and technical manpower was much lower than the average for Developing countries (D'gCs), Latin America and the Caribbean (LAC), Oceania, etc.

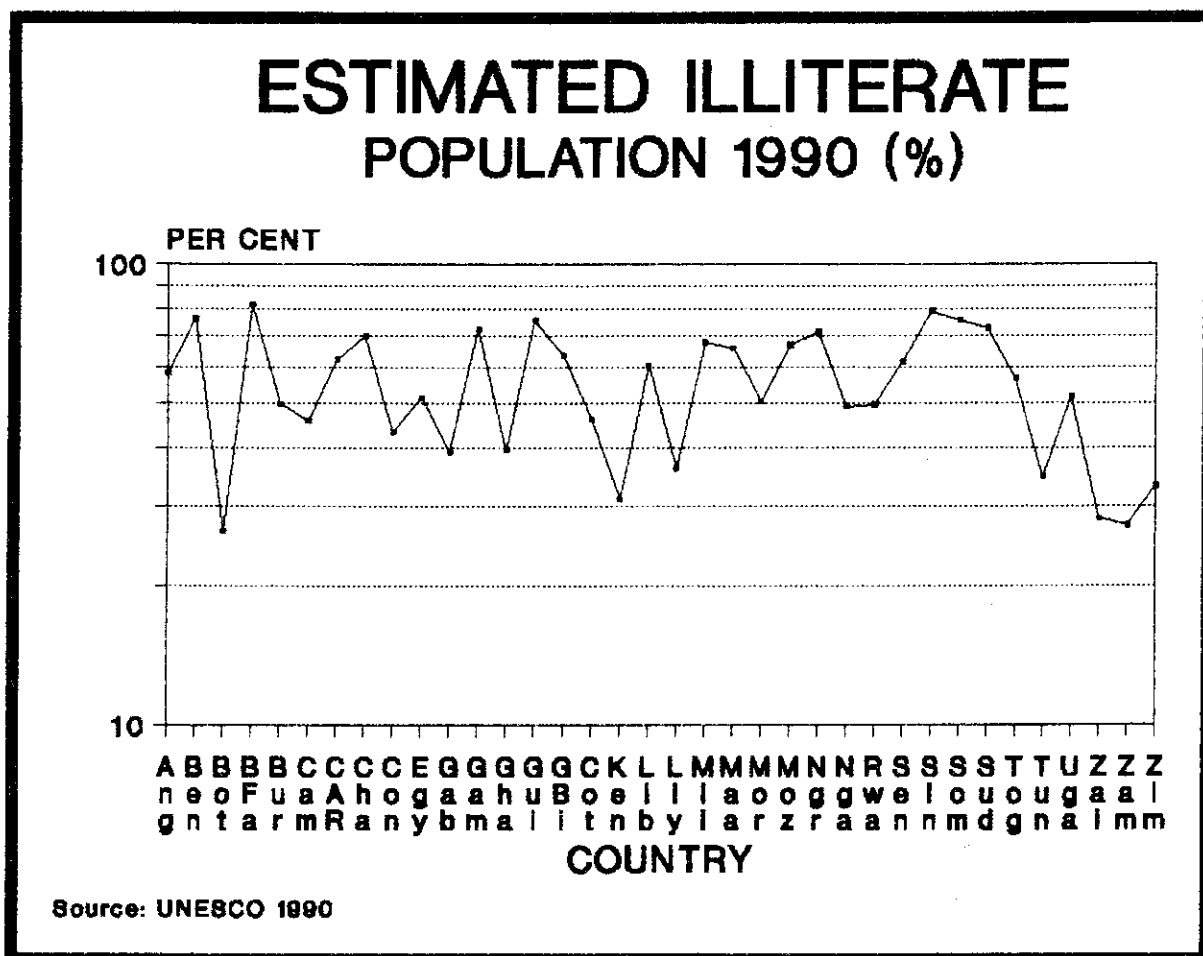
8. Basic education has yet to reach the vast majority of the population in Africa. In the wake of the rapid population growth rates and the reduced expenditure on the educational

Figure 2



sector necessitated by the economic crisis, the incidence of illiteracy is quite high. Figure 3 shows that the estimated proportion of the population which is illiterate in 1990, in some African countries, range from 27 per cent in Zambia to about 82 per cent in Burkina Faso. With this type of situation, human resources planning should address itself to finding measures which will universalise basic education so as to improve the literacy rates in Africa.

Figure 3



## C THE CONCEPTS OF TRAINING NEEDS ASSESSMENT AND LABOUR MARKET INFORMATION

### 9. According to Richter (1986)<sup>2</sup>

*training needs assessment and monitoring investigate and review the economically conditioned manpower requirements for the realisation of development plans, programmes and projects, and the demand emanating from labour markets. It is an essential ingredient of vocational training planning which seeks to strike a balance between the results of training needs*

<sup>2</sup>L. Richter, Training Needs: Assessment and Monitoring, (Geneva: ILO, 1986), pp. 5-6.

*assessment, social demand factors, and financial ability and priorities.*

10. The main objectives and subject areas of training needs assessment, at the national level and at the level of training planning, are as follows:<sup>3</sup>

At the national level

- a. the development of criteria for defining priorities in the field of training and for allocating investment resources to training activities;
- b. the definition of training policies adapted to the development strategy of a country;

At the level of training planning

- c. the determination of orders of magnitude of the various categories of manpower to be trained;
- d. the determination and quantification of the inputs in terms of training structure, equipment, manpower resources and finance required for undertaking training activities to satisfy the identified training needs; and
- e. the definition of the qualitative content as well as the form of organisation of the training to be provided.

11. It follows then that a lot of information is required to make realistic training needs assessment at the national, sectoral and firm levels. The information required to make possible manpower analysis, diagnose the training requirements, and to formulate appropriate policies cannot be addressed by the traditional manpower planning processes for the following reasons:<sup>4</sup>

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<sup>3</sup>T. Alfthan, Some Alternative approaches to assessing training needs, Training Policies Programme, Discussion Paper No. 2 (Geneva: ILO, 1981), p. 1, cited by *ibid.* p. 4.

<sup>4</sup>Michel Debeauvais and George Psacharopoulos, "Forecasting the needs for qualified manpower: towards an evaluation", in R.V. Youdi and K. Hinchliffe (eds.), Forecasting Skilled Manpower Needs: The Experience of Eleven Countries, (Paris: UNESCO, International Institute for Educational Planning, 1985), pp. 28-29. See also JASPA, African Employment Report 1988, pp. 99-105.

- i) Many manpower plans do not have exact descriptions of the methods used to arrive at the forecasts.
- ii) Manpower plans continue to be economic growth oriented. Rarely are objectives of equity, employment or social-demand satisfaction addressed.
- iii) Most manpower plans are concerned only with wage-employment in the modern sector of the economy. Such important areas of self-employment, informal sector and rural-sector (agricultural) employment are usually neglected.
- iv) There are huge discrepancies between the assumed and actual rates of economic growth.
- v) Few manpower plans seem to have had an effect on actual educational policy.
- vi) The age-composition of educated manpower is typically neglected in most plans -- a very important dimension for analyzing graduate unemployment and the replacement needs of retired personnel.
- vii) Manpower forecasts ignore the socio-economic and occupational mobility of the population. This makes forecasts inaccurate.

12. In the light of the foregoing, traditional manpower planning is being superseded by new orientations which are characterised by two main features:<sup>5</sup>

- (a) a stronger focus on regular reporting and analysis of labour market situations and trends so as to have an early detection (labour market signalling) of imbalances in labour supply and demand in different sectors of the economy, occupations and regions -- this is referred to as the labour market information (LMI);
- (b) a greater concern with the main manpower and employment issues in the rural- and informal- sectors; slower economic growth; and structural adjustment issues.

13. This change in direction has been necessitated by the inadequacies of traditional manpower planning, the need for poverty eradication, and the satisfaction of basic needs in development strategies. From the mid-1980s, the new orientation has been necessitated,

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<sup>5</sup>For a detailed discussion of the labour market information concept, see ILO/JASPA, African Employment Report 1988, (Addis Ababa: JASPA, 1989), pp. 105-113.



further, by the adverse impact of structural adjustment programmes on the human condition. ILO/JASPA argue that two main conclusions emerge from these new orientations:<sup>6</sup>

*The first is that formal forecasting/projection work in manpower planning seems to have less relevance to identifying and dealing with the main current manpower problems and issues than those of the past. In its place - or strongly supplementing it - manpower analysis based on labour market signalling has stepped in. It is concerned not only with factors influencing labour market transactions and manpower allocation practices both in formal and informal labour markets and portraying an overall and time-series picture of the manpower situation and trends, it seeks foremost to identify and to provide the basis for correcting emerging manpower supply and demand imbalances in their different manifestations at sub-national levels. It also attempts to throw more light on employment processes as they emerge. The second is that data requirements for signalling and analytical manpower planning are rather different, and in several ways more demanding, than for projection work of the conventional type. Disaggregation, continuity and promptness in delivery are most important pre-requisites to ensure the usefulness of information. Censuses, household surveys, establishment surveys and one-off manpower surveys - the familiar bases for conventional manpower planning - are not for this purpose. Neither are existing employment services statistics which in their present coverage, content and form do not serve well labour market signalling requirements and meaningful analysis.*

14. An efficient LMI is needed by governments to make decisions regarding reducing unemployment rates, plan training programmes, etc; individual employers to make decisions regarding levels of employment, availability of skills in the local and national labour markets, etc.; and for workers' and employers' associations to determine comparable wage compensation levels, local working conditions and training needs. Even members of the public who may want to decide on occupations to join may find an efficient LMI system useful.

15. In terms of planning, the adequacy of LMI can be judged by the following criteria:<sup>7</sup>

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<sup>6</sup>ibid. p. 106-107.

<sup>7</sup>ibid. p. 108.

- a. Comprehensiveness: LMI should provide a realistic assessment of major overall current employment and manpower patterns, trends and problems.
- b. Up-to-datedness: LMI should be up-to-date as it must be collected and analyzed on a regular basis to provide trends.
- c. Availability to users: LMI must be available to users (both formal and informal sectors) when needed and in the form required.
- d. Credibility: being at the centre of the new-style manpower planning approach, LMI suppliers should have the ability and quality which should have their product (LMI) credible.
- e. Cost-Effectiveness: the approaches, methods and techniques adopted in generating LMI should be cost-effective.

16. While a number of African countries have measures to improve LMI in the recent past, technical and organizational constraints continue to affect effective LMI. We list these hereunder.<sup>8</sup>

#### Technical constraints

17. These include the following:

- a. Limited and defective coverage: in many countries, LMI programmes do not cover all the relevant areas of manpower and sectors of the economy. Up-to-date and sufficiently detailed economic indicators for sectoral planning are lacking and the available information on manpower are fragmentary, scattered, aggregated and often obsolete. Information on the characteristics of the labour force, unemployment and under-employment is often non-existent.
- b. Informal Sector: this sector is neglected and is the least known in Africa. There is no complete information about the rural areas and the informal sector activities which together account for the majority of the labour force.
- c. Agricultural sector: available data on this sector is usually fragmentary, scattered and quantitative. It usually refers only to the number of workers by type of production. Data on the type of technology used, the socio-economic

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<sup>8</sup>ibid. pp. 111-113.

and cultural aspects of the agricultural labour force, and the associated problems of the seasonality nature and multiplicity of the activities are missing from LMI.

- d. Migration and mobility of workers: data on this aspect of labour is non-existent. LMI should provide detailed data on the causes of migration, types of migration, types of migrants, socio-economic and cultural background of migrants, patterns of movements of migrant labourers, the attraction offered by wages and conditions of service, etc. In non-agricultural rural sector, there is need for information relating to agro-food industry with emphasis on the possibility for developing activities in the traditional food processing areas -- information on the existing activities which could be modernised should therefore be provided.
- e. Employment exchange: this should be the main source of LMI through its regular reporting of employment services about vacancies, job seekers and matching operations. However, this data source has a lot of problems ranging from partial coverage to delays in publication and dissemination of information.

#### Organizational Constraints

18. Among this latter category of constraints we have the following:

- a. Dearth of experienced and trained staff: facilitates for systematic training of staff in technical and organizational skills necessary for LMI programmes are almost non-existent in many countries. As a consequence, there is a shortage of expertise required for effective operation of LMI programmes.
- b. Lack of consultation between producers and users: there is lack of close and effective collaboration between the producers and users of LMI both in the design and organization of LMI programmes. As such, the data does not, in most cases, satisfy the needs of some users.
- c. Delays in processing and publishing LMI: the up-to-datedness of LMI depends on the time lag between the time the data is collected and the time the information is made available to users. It is often the case that LMI are collected yearly and the long delays experienced in their processing and publication reduces their usefulness.

- d. Inadequate financial resources: this is evidenced by the shortage of staff; absence in rural areas; etc. which make execution of LMI programmes difficult.
- e. Co-ordination of LMI: As the successful execution of LMI programmes requires centralization, the lack of such a co-ordinating and consultative machinery is one impediment to LMI. The lack of institutional arrangements to ensure that priority needs are specified and gaps filled, over-lapping avoided, information collected in a systematic manner and widely disseminated, etc. tend to duplicate and waste effort.
- f. Difficulty of obtaining information: LMI authorities often face the problem of obtaining desired data from correct sources due to official or administrative embargo on dissemination of certain classes of information, poor quality of information collected, reluctance by employers to release information, and the lack of precision in the design of the questionnaires.

19. Since<sup>9</sup>

*labour market signals carry messages or indicators to decision-makers to initiate, modify or cease certain policies, programmes, projects or measures or, simply, to continue the course of action in progress ... labour market signals may be briefly defined as the most recent indicators of the situation and trends in the labour market(s). They provide early warnings of significant changes to be expected or they confirm tendencies previously observed. They can be of a quantitative or qualitative nature and of national, regional or local scope.*

20. Richter (p. 13) argues that the labour market signals and their users are of different types. For example, national policy makers and planners would require long-term aggregate signals in the form of time series (for example, population growth rate versus employment growth, the unemployment rates and the changes in the occupational structures, rising levels of educated youths experiencing unemployment, rural-urban migration rates, international migration and the brain-drain, etc.). These long-term signals provide an overall picture of the manpower supply and demand dynamics in the whole economy. From this picture, labour market imbalances can be detected and remedial policies and strategies designed. Many

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<sup>9</sup>Richter (1986), op. cit., p. 13.

countries in Africa are becoming adept in collecting and analysing this kind of information for use in planning training and other manpower aspects.<sup>10</sup>

21. The medium- and short-term signals -- which are of greatest value for training needs assessment -- are, however, difficult to come by in many African countries. "Movements in the rates of unemployment, vacancies, labour turnover, wage rates and incentives and differentials pertaining to different economic sectors, occupations and geographical areas are the more important signals involved. They point to existing and emerging imbalances in labour supply and demand."<sup>11</sup>

22. Labour shortages or manpower requirements should not be equated to training needs. Labour shortages cannot only be addressed by increased training activities as there are other ways of dealing with the problem. These may include a change in the salary scale, internal promotions, or change of the job description.<sup>12</sup> Labour market signals obtained from vacancy data and unemployment register of employment services also need to be handled with care as the capability for collecting quality data has yet to be strengthened in many African countries.

23. The collecting of relevant information will be enhanced to the extent that a real partnership is built between manpower planners, vocational training planners and the users of the human resources. For this reason, the past uneasy relationship between manpower planners and vocational training planners should be harmonised. What is needed is a co-ordinating authority which does not throw its weight around unnecessarily but one which seeks to stimulate, encourage, promote, technically support, analyse, synthesise and monitor the work of the many other agencies and institutions involved in human resources development.

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<sup>10</sup>See ILO/JASPA, African Employment Report 1988, (Addis Ababa: JASPA, 1989).

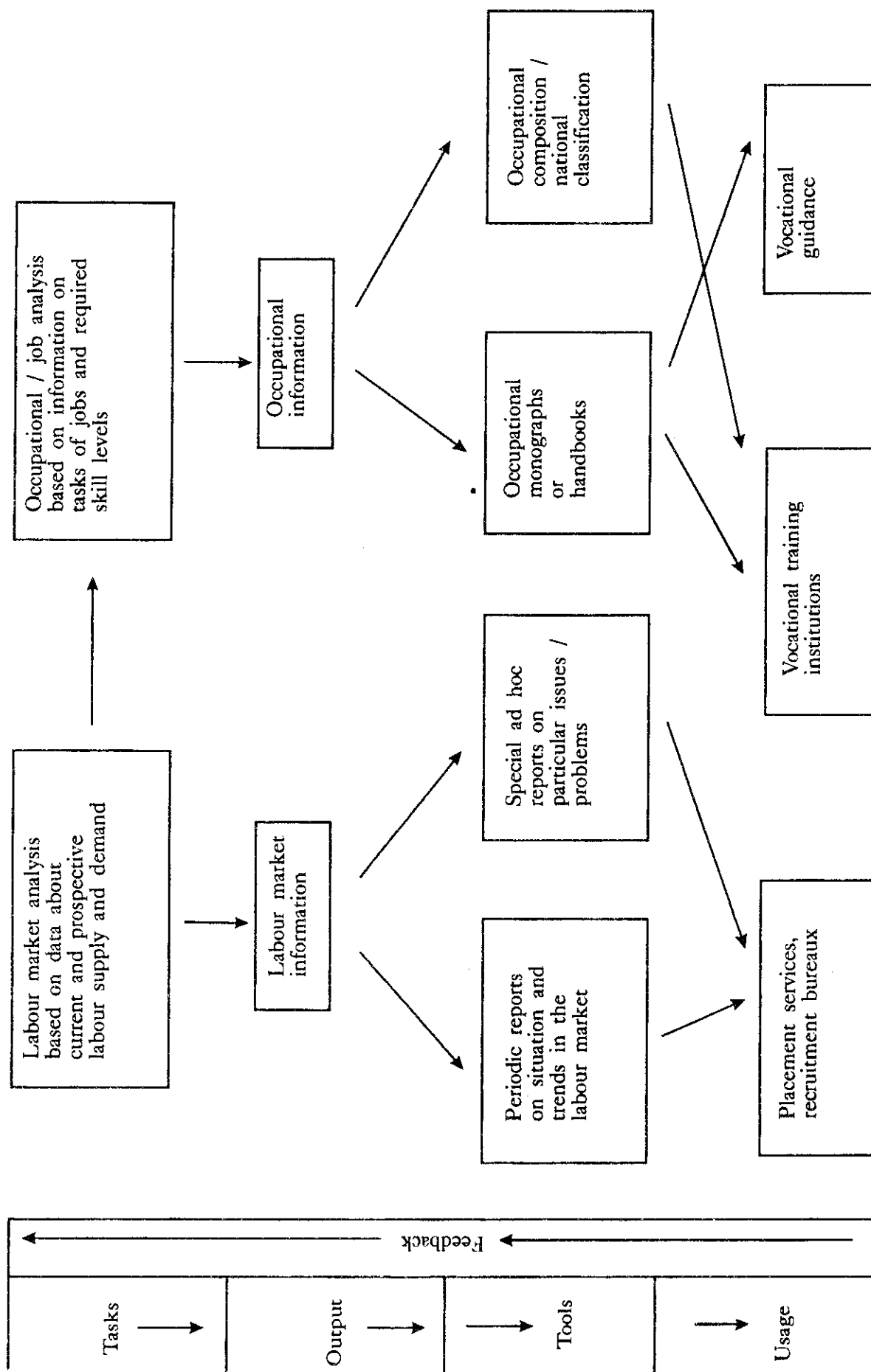
<sup>11</sup>Richter (1986), p. 14.

<sup>12</sup>For a detailed discussion of how firms adjust to labour shortages in an African context, see Mushiba Nyamazana, Manpower Planning and Labour Shortages in an Underdeveloped Economy: An Empirical Analysis of Manpower Policies and Practices of the Industrial Development Corporation Limited (INDECO) of Zambia, PhD Thesis, (London: University of London, 1989).

#### **D GUIDELINES FOR PREPARING MANPOWER PROFILES AND IDENTIFICATION OF TRAINING REQUIREMENTS**

24. In the context of the preceding discussion, we can discern a broad outline of the guidelines for preparing manpower profiles and identification of training requirements. As a first step, a closer examination of the national development objectives and the current socio-economic situation will help to determine the national training priorities.
25. Figure 4 shows that labour market and occupational analyses will provide labour market and occupational information which will indicate the human resources profile (the various skills available and their qualities). The human resources profile so identified will then be subjected to further analysis to determine as to whether it is adequate to meet the national socio-economic development objectives. If not, adjustment measures such as increased training activities, revising the pay structure and the enabling environment and changes in job descriptions will have to be considered. The various measures are necessary as training is not the only solution to all the manpower problems experienced in Africa.
26. Where the training need is identified, the next step will involve determining the various numbers of the categories of manpower to be trained; the quantification of the various inputs required for the execution of the various training activities to meet the identified training needs; and to determine the quality levels the various training programmes are supposed to attain (see paragraph 10).
27. The diagnosis of the human resources profiles will be enhanced to the extent that quality labour market information is available to the manpower planners, vocational planners and to employers. Without such information, it is difficult to envisage how a diagnostic analysis of the labour and occupational/job situations can be done in a country.

Figure 4 Relationship between labour market and training needs analysis and manpower services\*



\* Aptitude testing is not included in this schematic overview.

## **E CONCLUSION**

28. This paper has shown that the African labour and occupational markets are characterised by inadequate skills both in terms of quantity and quality. Such a human resources profile suggests, among other things, the need for increased training activities so as to increase the supply of skilled manpower necessary for socio-economic recovery and transformation. A proper diagnosis of the labour and occupational situation in any given country would be determined by the availability of quality labour market information that would make it possible to assess the situation. Quality labour market information is therefore a necessary prerequisite for the preparation of manpower profiles and the identification of training needs. One can only hope that African countries will increase their efforts in improving labour market information systems so as to enhance the planning, development and utilisation of human resources.